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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|--------------------------------|------------------|
| 09/989,100 | 11/21/2001 | David Siadat | 082259-0151 (00CXT0281C) | 9287 |
| 7590 04/12/2006 TROY M. SCHMELZER HOGAN & HARTSON L.L.P. 500 SOUTH GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071 | | | EXAMINER AGHDAM, FRESHTEH N | |
| | | | ART UNIT 2611 | PAPER NUMBER |
| DATE MAILED: 04/12/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------|-------------------------------|--|
| Office Action Summary | Application No. 09/989,100 | Applicant(s) SIADAT ET AL. | |
| | Examiner Freshteh N. Aghdam | Art Unit 2611 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 8, filed 1/23/2006, with respect to the rejection(s) of claim(s) 1-29 under Kubo et al (US 4,896,349), Fawal et al (US 6,452,938), and Yamano et al (US 6,597,768) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kubo et al (US 4896349) (hereafter referred to as Kubo), further in view of Fawal et al (US 6,452,938) and Yamano et al (US 6,597,768).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo et al. (US 4896349) (hereafter referred to as Kubo), further in view of Fawal et al (US 6,452,938) and Yamano et al (US 6,597,768).

As to claims 1-4, 6-8, 10, 12-14, 17, 20-21, 23, 25, 27-29, Kubo teaches a communication circuit comprising: A first transceiver circuit (column 4, line 31 - column 7, line 10; figure 2, 8, 9, 12, 13); a second transceiver circuit (figure 2, 10, 11, 14, 15);

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an integrated transformer (figure 2, 25) having a single core (figure 2), an input coil (figure 2, 25a), a first output coil (figure 2, 25b), and a second output coil (figure 2, 25c); wherein the input coil is coupled to a signal source (figure 2, 21), the first output coil is coupled to the first transceiver circuit (figure 2, 8, 9, 12, 13), and the second output coil is coupled to the second transceiver circuit (figure 2, 10, 11, 14, 15). The first and second transceiver circuits comprise, respectively: a communication apparatus, and a computer or television, a communication apparatus, and a sensor or meter. These transceiver circuits are capable of transmitting and receiving data. Kubo teaches using a pair of wires (Kubo, figure 2,17) to transmit data at a lower frequency band, and a coaxial cable for data at higher frequency band (column 2, lines 19-33). Kubo is silent about the transformer being an integrated transformer; and also is silent to expressly disclose a first bandpass filter coupled between the first output coil and the first transceiver circuit that is configured to pass only the first frequency range; and a second bandpass filter coupled between the first output coil and the second transceiver circuit that is configured to pass only a second frequency range. One of ordinary skill in the art would clearly recognize that the integrated transformers are well known in the art as evidenced by Fawal (column 10, line 51; figure 8). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Fawal with Kubo in order to simplify the circuit and eliminates the need for a separate transformer and cables associated for connecting the transformer. Yamano teaches a transformer circuit, coupled to a codec, where the codec may be a DSL modem (i.e. ADSL) that works in the frequency range of 26 KHz-1.1 MHz; and also, coupled to a phone line

network transceiver (i.e. LAN or home LAN) that works in the frequency range of 4.0

MHz-10.0 MHz (Yamano, column 1, lines 49-57; column 2, lines 35-64; column 4, lines 29-64; column 5, lines 11-17 and 57-64, column 6, lines 29-67; figure 1e, 2, 4, and 7, means 130 and 136). It is well known to use band-pass filters to only pass a certain frequency range (band) and block the rest of the frequencies. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Yamano with Kubo and Fawal in order to utilize spectrum on the existing POTS wiring more efficiently and achieve spectral avoidance.

As to claim 5, Kubo teaches a single core (figure 2, 25), wherein the single core is configured to operate in a plurality of frequency ranges (column 2, lines 19-33).

As to claims 9 and 27, Fawal further teaches a transformer coupled to a filter, disposed on a substrate (Fawal, column 11, line 57- column 12, line 2., figure 10). It is well known in the art that a substrate be used to dispose various components thereon, in order to minimize space and cost of components. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention that a transformer and a bandpass filter be disposed on a substrate, in the system taught by Kubo, such that minimal space and cost be used for these components.

As to claim 16, Kubo teaches a transformer system comprising: an input coil coupled to a signal source, a first output coil coupled to a first transceiver circuit, and a second output coil coupled to a second transceiver circuit, wherein the single core is configured to operate in a plurality of frequency ranges. The input coil, first and second

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output coil each includes a coil of wire, having a plurality of turns, surrounding the single core (Kubo, figure 2, 25, 25a, 25b, 25c).

As to claim 18, Kubo teaches a transformer circuit comprising: a single core, an input coil coupled to a signal source, a first output coil coupled to a first transceiver circuit, and a second output coil coupled to a second transceiver circuit, and the single core is configured to operate in a plurality of frequency ranges, wherein the data is transmitted via the magnetic path (Kubo, figure 2). The transformer core provides a path from the transmitting to the receiving systems, the transformer core provides a path between the input coil, and the first and second receiving coils (Kubo, figure 2, 25, 25a, 25b, 25c).

As to claim 19, Kubo teaches a transformer circuit comprising: an input coil coupled to a signal source, a first output coil coupled to a first transceiver circuit, and a second output coil coupled to a second transceiver circuit, wherein the single core is configured to operate in a plurality of frequency ranges. Kubo does not teach the transformer is an integrated transformer. Kubo does not teach a means for receiving an input signal includes a RJ11 connector. One of ordinary skill in the art would clearly recognize that the integrated transformers are well known in the art as evidenced by Fawal (column 10, line 51; figure 8). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of Fawal with Kubo in order to simplify the circuit and eliminates the need for a separate transformer and cables associated for connecting the transformer. Yamano teaches a means for receiving an input signal includes a RJ11 connector (Yamano, column 6, lines 29-35; figures 6-8 and 10). It is

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well known in the art at the time of the invention that a means for receiving an input signal includes a RJ11 connector, because it is well known in the art that a connector be used for receiving an input signal in a transformer system. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention, that a RJ11 connector be used, in the system taught by Kubo and Fawal, in order to receive an input signal.

As to claim 22, Kubo teaches a transformer circuit comprising an input coil coupled to a signal source, a first output coil coupled to a first transceiver circuit, and a second output coil coupled to a second transceiver circuit, wherein the single core is configured to operate in a plurality of frequency ranges. Kubo teaches a means for receiving a signal includes a coil of wire having a plurality of turns (Kubo, figure 2, 25). As applied to base claim 17 above, Yamano teaches receiving a signal where the signal may be either an ADSL or a LAN signal, in the system taught by Kubo and Fawal.

Allowable Subject Matter

Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Foley (US 6,069,899) see figures 4A and 4B.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam
April 4, 2006



KEVIN BURD
PRIMARY EXAMINER